Complete Summary

TITLE

Chronic stable coronary artery disease (CAD): percentage of patients who also have diabetes and/or left ventricular systolic dysfunction (LVSD) who were prescribed angiotensin-converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) therapy.

SOURCE(S)

American College of Cardiology, American Heart Association, Physician Consortium for Performance Improvement™. Clinical performance measures: chronic stable coronary artery disease. Tools developed by physicians for physicians. Chicago (IL): American Medical Association (AMA); 2005. 8 p. [18 references]

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the Measure Validity page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of chronic stable coronary artery disease (CAD) patients who also have diabetes and/or left ventricular systolic dysfunction (LVSD) who were prescribed angiotensin-converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) therapy.

RATIONALE

According to American College of Cardiology/American Heart Association (ACC/AHA) guidelines, angiotensin-converting enzyme (ACE) inhibitor use is recommended in all patients with coronary artery disease (CAD) who also have

diabetes and/or left ventricular systolic dysfunction (LVSD). ACE inhibitor use is also recommended in patients with CAD or other vascular disease.

In ST-elevation myocardial infarction (STEMI) patients who tolerate ACE inhibitors, an angiotensin receptor blocker (ARB) can be useful as an alternative to ACE inhibitors in the long-term management of STEMI patients, provided there are either clinical or radiological signs of heart failure or left ventricular ejection fraction (LVEF) less than 0.40.

PRIMARY CLINICAL COMPONENT

Coronary artery disease (CAD); angiotensin-converting enzyme (ACE) inhibitor therapy; angiotensin receptor blocker (ARB) therapy

DENOMINATOR DESCRIPTION

All patients with coronary artery disease (CAD) who also have diabetes and/or left ventricular systolic dysfunction (LVSD)

NUMERATOR DESCRIPTION

Patients from the denominator who were prescribed angiotensin-converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) therapy

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

NATIONAL GUIDELINE CLEARINGHOUSE LINK

- ACC/AHA 2002 guideline update for the management of patients with chronic stable angina: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee to Update the 1999 Guidelines for the Management of Patients With Chronic Stable Angina).
- ACC/AHA guidelines for the management of patients with ST-elevation myocardial infarction. A report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee to revise the 1999 guidelines for the Management of Acute Myocardial Infarction).

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Overall poor quality for the performance measured
Variation in quality for the performance measured

EVIDENCE SUPPORTING NEED FOR THE MEASURE

Gibbons RJ, Abrams J, Chatterjee K, Daley J, Deedwania PC, Douglas JS, Ferguson TB Jr, Fihn SD, Fraker TD Jr, Gardin JM, O'Rourke RA, Pasternak RC, Williams SV. ACC/AHA 2002 guideline update for the management of patients with chronic stable angina. Summary article. J Am Coll Cardiol2003 Jan 1;41(1):159-68. PubMed

Jencks SF, Huff ED, Cuerdon T. Change in the quality of care delivered to Medicare beneficiaries, 1998-1999 to 2000-2001. JAMA2003 Jan 15;289(3):305-12. PubMed

State of Use of the Measure

STATE OF USE

Pilot testing

CURRENT USE

Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Ambulatory Care
Community Health Care
Managed Care Plans
Physician Group Practices/Clinics
Rural Health Care

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Advanced Practice Nurses
Physician Assistants
Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Individual Clinicians

TARGET POPULATION AGE

Patients of all ages with the diagnosis of chronic stable coronary artery disease (CAD)

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

- Approximately 13 million Americans are living with coronary artery disease (CAD).
- More than 1 million Americans had a new or recurrent coronary attack in 2001.
- Despite potential risks and established clinical guidelines, recent data suggest that some patients are not being managed optimally for this disease. It has been reported that in some states only 74% of Medicare patients hospitalized for acute myocardial infarction (AMI) were prescribed angiotensin-converting enzyme (ACE) inhibitor therapy on discharge.

EVIDENCE FOR INCIDENCE/PREVALENCE

American Heart Association. Heart disease and stroke statistics - 2003 update. Dallas (TX): American Heart Association; 2002. 46 p.

Jencks SF, Huff ED, Cuerdon T. Change in the quality of care delivered to Medicare beneficiaries, 1998-1999 to 2000-2001. JAMA2003 Jan 15;289(3):305-12. PubMed

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

- Chronic stable coronary artery disease (CAD) is the leading cause of mortality in the United States, accounting for almost 1 in 5 deaths.
- For individuals with CAD, the risk of another heart attack, stroke, and other serious complications is substantial.

EVIDENCE FOR BURDEN OF ILLNESS

American Heart Association. Heart disease and stroke statistics - 2003 update. Dallas (TX): American Heart Association; 2002. 46 p.

UTILIZATION

Within the past 2 decades, the number of short-stay hospital discharges for individuals with coronary artery disease (CAD) increased by almost 18%.

EVIDENCE FOR UTILIZATION

American Heart Association. Heart disease and stroke statistics - 2003 update. Dallas (TX): American Heart Association; 2002. 46 p.

COSTS

The total annual cost of coronary artery disease (CAD) in the United States is approximately $130 billion.

EVIDENCE FOR COSTS

American Heart Association. Heart disease and stroke statistics - 2003 update. Dallas (TX): American Heart Association; 2002. 46 p.

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

All patients with coronary artery disease (CAD) who also have diabetes and/or left ventricular systolic dysfunction (LVSD)

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions
All patients with coronary artery disease (CAD) who also have diabetes and/or left ventricular systolic dysfunction (LVSD) (left ventricular ejection fraction [LVEF] less than 40% or moderately or severely depressed LVSD)

Exclusions
Documentation of medical reason(s)* for not prescribing angiotensin-converting enzyme (ACE) inhibitor and for not prescribing angiotensin receptor blocker (ARB) therapy; documentation of patient reason(s)** for not prescribing ACE inhibitor and for not prescribing ARB therapy

*Medical reasons for not prescribing ACE inhibitor (ACEI): allergy, angioedema due to ACEI, anuric renal failure due to ACEI, pregnancy, moderate or severe aortic stenosis, etc.

**Patient reasons for not prescribing ACEI: economic, social, and/or religious, etc.

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Clinical Condition

DENOMINATOR TIME WINDOW

Time window follows index event

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions
Patients from the denominator who were prescribed angiotensin-converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) therapy

Exclusions
None

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Fixed time period

DATA SOURCE

Medical record

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

None

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

ACE inhibitor or ARB therapy.

MEASURE COLLECTION

The Physician Consortium for Performance Improvement Measurement Sets

MEASURE SET NAME

American College of Cardiology, American Heart Association, and Physician Consortium for Performance Improvement: Chronic Stable Coronary Artery Disease Physician Performance Measurement Set

SUBMITTER

American Medical Association on behalf of the American College of Cardiology, the American Heart Association, and the Physician Consortium for Performance Improvement

DEVELOPER

American College of Cardiology - Medical Specialty Society
American Heart Association
Physician Consortium for Performance Improvement

ENDORSER

National Quality Forum

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2003 Jan

REVISION DATE

2005 Aug

MEASURE STATUS

This is the current release of the measure.

This measure updates a previous version: American College of Cardiology, American Heart Association, Physician Consortium for Performance Improvement. Clinical performance measures. Chronic stable coronary artery disease. Chicago (IL): American Medical Association (AMA); 2003. 8 p.

SOURCE(S)

American College of Cardiology, American Heart Association, Physician Consortium for Performance Improvement™. Clinical performance measures: chronic stable coronary artery disease. Tools developed by physicians for physicians. Chicago (IL): American Medical Association (AMA); 2005. 8 p. [18 references]

MEASURE AVAILABILITY

The individual measure, "ACE Inhibitor or ARB Therapy," is published in the "Clinical Performance Measures: Chronic Stable Coronary Artery Disease." This document and technical specifications are available in Portable Document Format (PDF) from the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement Web site: www.physicianconsortium.org.

For further information, please contact AMA staff by e-mail at cqi@ama-assn.org.

COMPANION DOCUMENTS

The following are available:

- Physician Consortium for Performance Improvement. Introduction to physician performance measurement sets. Tools developed by physicians for physicians. Chicago (IL): American Medical Association (AMA); 2001 Oct. 21 p. This document is available from the American Medical Association (AMA) Clinical Quality Improvement Web site: www.ama-assn.org/go/quality.
- Physician Consortium for Performance Improvement. Principles for performance measurement in health care. A consensus statement. [online]. Chicago (IL): American Medical Association (AMA), Joint Commission on the Accreditation of Healthcare Organizations (JCAHO), National Committee for Quality Assurance (NCQA); [3 p]. This document is available from the AMA Clinical Quality Improvement Web site: www.ama-assn.org/go/quality.
- Physician Consortium for Performance Improvement. Desirable attributes of performance measures. A consensus statement. [online]. American Medical Association (AMA), Joint Commission on Accreditation of Healthcare Organizations (JCAHO), National Committee for Quality Assurance (NCQA); 1999 Apr 19 [cited 2002 Jun 19]. [5 p]. This document is available from the AMA Clinical Quality Improvement Web site: www.ama-assn.org/go/quality.

For further information, please contact AMA staff by e-mail at cqi@ama-assn.org.

NQMC STATUS

This NQMC summary was completed by ECRI on September 26, 2003. The information was verified by the measure developer on January 28, 2004. This NQMC summary was updated by ECRI on September 28, 2005.

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